

## Claims

- [c1] WHAT IS CLAIMED IS:
1. A system for determining shared interests between at least two sets of interests, comprising:  
progressively comparing each interest in each set of interests to interests in every other set of interests;  
analyzing the results of the progressive comparison for determining whether any interests belonging to any set of interests partially matches any interests in any other set of interests;  
terminating the progressive comparison for specific interests with respect to each set of interests wherein the specific interests do not partially match any interests; continuing the progressive comparison for specific interests with respect to each set of interests wherein the specific interests do partially match any interests; and  
determining all shared interests between any of the at least two sets of interests by continuing the progressive comparison of interests to identify all interests belonging any set of interests that completely match interests in any other set of interests.
  - [c2] 2. The system of claim 1 wherein each set of interests is encoded using a one-way hash for preventing an identification of partially matched encoded interests.
  - [c3] 3. The system of claim 1 wherein each interest in each set of interests is encrypted.
  - [c4] 4. The system of claim 1 wherein each set of interests is identified by unique users.
  - [c5] 5. The system of claim 1 wherein each set of interests is identified by unique users from a list of predefined interests.
  - [c6] 6. The system of claim 1 further comprising determining whether specific interests are closely matched with any interests in any other set of interests after terminating the progressive comparison for specific interests which do not

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partially match any interests.

- [c7] 7. The system of claim 6 wherein interests are categorized in a hierarchical structure in order to facilitate the determination as to whether the specific interests are closely matched with any interests in any other set of interests.
- [c8] 8. The system of claim 1 wherein all shared interests are disclosed between sets of interests having the shared interests.
- [c9] 9. The system of claim 1 wherein progressively comparing each interest further comprises progressively transmitting each interest via at least one encrypted communications channel.
- [c10] 10. A computer-implemented process for automatically determining whether unique entities have any matched interests without disclosing non-matched interests, comprising:  
providing a set of interests for each entity;  
encoding each interest for each set of interests;  
partially disclosing each encoded interest in each set of interests to each unique entity;  
automatically performing a comparison of each partially disclosed encoded interest with the partially disclosed interests in each other set of interests;  
determining whether there is a partial match of interests between the partially disclosed interests of any unique entities;  
continuing to automatically perform the partial comparison of each encoded interest for specific interests for as long as there is a partial match of the specific interests between any unique entities; and  
automatically identifying interest matches between any unique entities through the continued automatic partial comparison of each encoded interest.
- [c11] 11. The computer-implemented process of claim 10 wherein encoding each interest comprises encoding each interest using a one-way hash.
- [c12] 12. The computer-implemented process of claim 10 wherein automatically identifying interest matches between any unique entities comprises identifying

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complete interest matches.

[c13] 13. The computer-implemented process of claim 10 wherein automatically identifying interest matches between any unique entities comprises identifying close interest matches.

[c14] 14. The computer-implemented process of claim 10 wherein partially disclosing each encoded interest in each set of interests to each unique entity comprises transmitting each partially discloses interest via at least one encrypted communications channel.

[c15] 15. The computer-implemented process of claim 10 wherein encoding each interest for each set of interests comprises using a common encoding scheme for each set of interests.

[c16] 16. The computer-implemented process of claim 15 wherein a new common encoding scheme is used each time new sets of interests are compared.

[c17] 17. A computer-readable medium having computer executable instructions for identifying common interests between at least two entities without using a third party, said computer executable instructions comprising:  
partially revealing each interest of each entity to each other entity;  
determining whether any of the partially revealed interests match any other partially revealed interests by comparing the partially revealed interests;  
continuing to partially reveal more of each partially matched interest of each entity to each other entity having a corresponding partially matched interest;  
continuing to compare the partially matched interests;  
and  
automatically determining whether the partially matched interests are common interests.

[c18] 18. The computer-readable medium of claim 17 wherein the common interests are exactly matched interests.

[c19] 19. The computer-readable medium of claim 17 wherein the common interests

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are closely matched interests.

[c20] 20. The computer-readable medium of claim 19 wherein a set of all possible interests is categorized in a hierarchical structure in order to determine whether the common interests are closely matched interests.

[c21] 21. The computer-readable medium of claim 17 wherein each interest is encoded prior to partially revealing each interest of each entity to each other entity.

[c22] 22. The computer-readable medium of claim 17 wherein each interest of each entity is partially revealed to each other entity via a secure communications channel.

[c23] 23. The computer-readable medium of claim 22 wherein the secure communications channel is an encrypted communication channel.

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